NOTE XXII.

ON BIRDS FROM THE CONGO AND SOUTH WESTERN AFRICA.

BY

J. BÜTTIKOFER.

(Plate 9).

The bird-collections, treated of in this paper, have been made by Mr. P. J. van der Kellen [1]) in the region of the Upper Cunene and east of it in the valleys of the Okovango- and Umbella River. Before the collector reached these localities, he had a short stay on the Lower Congo (24 Sept.—22 Oct. 1884) where he happened to collect 13 species, which will be mentioned at the head of the following list.

In the very short reports, sent over together with the collections, nothing is told about the habits of the specimens obtained, and as the birds of this region are very thoroughly and exhaustively treated of by Mr. Sharpe in his second edition of Layard's Birds of South Africa, as well as by Prof. Barbosa du Bocage in his »Ornithologie d'Angola", there is but little left to say on van der Kellen's South West African collection. This latter contains about 300 specimens, representing 131 different species. Two of the latter are new, while several others are very rare birds. The following are the places and dates, at which Mr. van der Kellen has obtained his specimens.

1) See: Dr. Jentink, on Mammals from Mossamedes (N. L. M. 1887, p. 171).

1885.

Mossamedes, 22 December 1884—4 January.	N°	16—32
Humpata, 8 February—6 November.	»	33—90

1886.

Pompenini (Otji Pompenina?), 7—12 January.	N°	91—96
Quipanhime, 23 January—2 February. . . .	»	97—114
Otjipahé (Huilla), 10 February—30 March.	»	115—149
Muhino (near Huilla), 31 March—14 April.	»	150—189
Calculavar River, 8—9 August	»	190—193
Otjipungo, 2—3 September	»	194—195
Cunene River, 6—10 September.	»	196—198
Horsie River, 15—16 September.	»	199—200
Okovango (Cubango) River, 2—6 November.	»	201—205
Umbella River, 4—10 December	»	206—215
Kasinga River, 11—14 December.	»	216—220
Umbella River, 20—28 December.	»	221—224

1887.

Kakelle River, 2—14 January.	»	225—241
Kasinga River, 9—22 February	»	242—251
Umbella River, 27 February.	»	252
Kasinga River, 27 February—11 March . .	»	253—269
Umbella River, 13 March	»	270
Kasinga River, 15 March—10 May.	»	271—311

I have given the names of localities unaltered like I found them in van der Kellen's lists; some of them are not mentioned in any map. The collector's head-quarter has been Humpata, the well-known colony of Trek Boers in the mountains behind Mossamedes, and from there excursions have been made to Huilla, and across the Calculavar- and Cunene River eastward to the Okovango- (Cubango-), Umbella- and Kasinga River.

A. *Birds from the Congo.*

1. *Eurystomus afer* (Lath.). Vista.
2. *Ceryle rudis* (Linn.). Ango Ango.
3. *Halcyon senegalensis* (Linn.). Banana.
4. » *chelicuti* (Stanl.). Boma.
5. *Merops erythropterus* (Gm.), ad. ♀, Banana.

Although this specimen agrees fully with those from Abyssinia and another from the Victoria Nyanza (Coll. Fischer), I prefer to quote it under the head of *M. erythropterus* instead of *cyanostictus* (Cab., v. d. Deck. Reis. III. p. 34 [1869]) or *pusillus cyanostictus* (Shelley, Ibis 1885, p. 398). This eastern form is distinguished from the western, the true *M. erythropterus*, by a broader subterminal black band across the tail and a blue superciliary stripe extending occasionally onto the front. In the South African and South West African birds, *M. pusillus*, the black cross-band is also broader than in the specimens north of the Gaboon, but the blue superciliary band is generally wanting. There are, however, no sharp limits between the typical northwestern form and both eastern and southern, what we might call subspecies, as I found in Liberia several specimens with the blue superciliary streak more or less faintly indicated, and our collection contains a specimen from the Senegal with narrow cross-band on the tail, in which the superciliary stripe is fully developed.

6. *Cinnyris bifasciatus* (Shaw). 2 ad. males, Banana and Ango Ango.
7. *Anthreptes tephrolaema* (Jard. & Fras.).

Nectarinia gabonica, Hartl. J. f. O. 1861, pp. 13, 109. (♀).
Anthreptes tephrolaema, Shelley, Mon. Nect. p. 333, and especially the rectification in the same work, p. XLVI.

An adult female with nest and an egg, 28 September, Banana. The female bird, as well as nest and egg, are perfectly similar to those of *A. rectirostris* I. collected in Liberia, and which are mentioned under the head of *Cin-*

nyris venusta (N. L. M. 1885, p. 170) and afterwards as *Stiphrornis alboterminata* Reichenow (N. L. M. 1886, p. 245 and 250). *Anthreptes tephrolaema* thus differs from *A. rectirostris*, its northern representative, by the color of the male only, especially by the color of chin and upper throat, which is ashy gray instead of yellow. Dr. Reichenow, whom I sent some time ago one of my Liberian female birds for comparison with his typical *Stiphrornis alboterminata*, found it identical with the latter, but the tongue of a spirit-specimen, which I happened afterwards to prepare, shows to evidence that the bird, considered to be a *Stiphrornis*, is a true *Anthreptes*, and *St. alboterminata* undoubtedly will be *Anthreptes rectirostris*, the northern form of straight-billed Sun Birds.

8. *Dryoscopus major* (Hartl.), ad. ♂, Banana.
9. *Ploceus cinctus* (Cass.), ad. ♂, Vista.
10. *Pyromelana flammiceps* (Sw.), ♂?, Boma.
11. *Dendropicus cardinalis* (Gm.), ad. ♂, Ango Ango.
12. *Ardea atricapilla*, Afz., ad. ♂, Ango Ango.
13. *Numenius phaeopus* (Linn.), ad. ♂, Banana.

B. *Birds from South West Africa.*

1. *Serpentarius secretarius* (Scop.).

Serpentarius secretarius, Sharpe, Birds S. Afr. p. 8.
Gypogeranus serpentarius, Boc. Orn. d'Ang. p. 6.

An adult male, 27 September, Humpata.

Iris yellowish brown, cere and other naked parts flesh-color, bill black, feet horn-color.

2. *Circus macrourus*, Gm.

Circus macrurus, Sharpe, Birds S. Afr. p. 11.

A young male with fawn-colored under surface, 26 October, Humpata.

Iris brown, bill black, cere and feet lemon-yellow. — Contents of stomach: Mice.

3. *Circus ranivorus* (Daud.).

Circus ranivorus, Sharpe, Birds S. Afr. p. 14; — Boc. Orn. d'Ang. p. 11.

Three full-grown young males, 8 and 11 October, Humpata.

Iris light brown, bill black, cere and feet yellow.

4. *Aquila rapax* (Temm.).

Aquila clanga, Schl. Mus. P.-B. Revue Accip. p. 115.
Aquila rapax, Sharpe, Birds S. Afr. p. 35; — Boc. Orn. d'Ang. p. 26.

An adult female with the same parti-colored plumage as shown in Temminck's Pl. Col. I. pl. 455. It was killed 30 January at Quipanhime.

Iris light brown, bill black, cere and feet yellow.

5. *Melierax gabar* (Daud.).

Melierax gabar, Sharpe, Birds S. Afr. p. 19; — Boc. Orn. d'Ang. p. 15.

Two adult females, one from Otjipahé (16 March), the other from the Kasinga River (18 April).

Iris blood-red, bill black, cere and feet orange-red.

6. *Astur polyzonoides* (Smith).

Nisus badius, Schl. (part.) Mus. P.-B. Astures, p. 48; id. Revue Accip. p. 92.
Astur polyzonoides, Sharpe, Birds S. Afr. p. 22.
Scelospizias polyzonoides, Boc. Orn. d'Ang. p. 19.

An adult male, 3 April, and a young male, 25 March, both from the vicinity of Huilla.

7. *Asturinula monogrammica* (Temm.).

Asturinula monogrammica, Sharpe, Birds S. Afr. p. 42; — Boc. Orn. d'Ang. p. 33.

An adult female, 7 March, Huilla.

Iris light red, bill black, cere and feet orange-red.

8. *Milvus aegyptius* (Gm.).

Milvus aegyptius, Sharpe, Birds S. Afr. p.49; — Boc. Orn. d'Ang. p. 43.

An adult female, 28 January, Quipanhime.

Iris brown, bill and feet yellow.

9. *Elanus caeruleus* (Desf.).

Elanus melanopterus, Schl. Mus. P.-B., Milvi, p. 6; id. Revue Accip. p. 130.

Elanus caeruleus, Sharpe, Birds S. Afr. p. 52; — Boc. Orn. d'Ang. p. 44.

A series of adult and young specimens from Humpata and Huilla, collected in all seasons of the year.

Iris in young specimens light brown, in adult blood-red, bill black, cere and feet lemon-yellow. — Contents of stomach: Mice.

10. *Baza verreauxii* (Lafr.).

Baza cuculoides, Schl. Mus. P.-B. Revue Accip. p. 133 (N° 2, from Natal).

Baza verreauxii, Sharpe, Birds S. Afr. p. 54, pl. 1.

A fullgrown young female, shot 4 March on the Kasinga River.

Iris yellow, bill black, cere and feet yellow.

This specimen, the first which is noticed from the western part of South Africa, agrees in size and color with a specimen from Natal in our Museum, which was obtained from Mr. Gurney in 1866 and which was hitherto the only representative of this species in our Museum. The under wing-coverts in both are banded across, though very faintly, with rufous and white, and also in another female from the Gold Coast. This latter is however considerably smaller and has its upper surface darker brown than the former two specimens.

11. *Falco subbuteo*, Linn.

Falco subbuteo, Sharpe, Birds S. Afr. p. 59; — Boc. Orn. d'Ang. p. 48.

An adult female from Otjipahé (Huilla), 17 March.
Iris brown, bill bluish, cere and feet yellow.

12. *Falco rupicola*, Daud.

Cerchneis rupicola, Sharpe, Birds S. Afr. p. 62; — Boc. Orn. d'Ang. p. 49.

Three specimens, an adult male from the Kasinga River, 5 May, an adult female from Humpata, 13 February, and an immature female from the latter locality, 1 October.
Iris brown, bill bluish, cere and feet lemon-yellow. — Contents of stomach: Locusts.

13. *Falco dickinsonii*, Sclater.

Cerchneis dickinsonii, Sharpe, Birds S. Afr. pp. 68, 801; — Boc. Orn. d'Ang. p. 53.

Three specimens (a male and two females), March and April, on the Kasinga River.
Iris dark brown, bill black, feet and bare parts of the face lemon-yellow.

14. *Bubo lacteus* (Temm.).

Bubo lacteus, Sharpe, Birds S. Afr. p. 71; — Boc. Orn. d'Ang. p. 56.

Two adult males; one from Otjipahé (Huilla), 23 March, the other from the Kasinga River, 5 November.
Iris brown, bill horny yellow, bluish gray towards the base. — Contents of stomach: Beetles.

15. *Bubo leucotis* (Temm.).

Scops leucotis, Sharpe, Birds S. Afr. p. 74; — Boc. Orn. d'Ang. p. 58.

An adult male from Muhino (Huilla), 14 April.
Iris orange-yellow, bill horny yellow.

16. *Scops capensis*, Smith.

Scops capensis, Sharpe, Birds S. Afr. p. 75; — Boc. Orn. d'Ang. p. 59.

An adult female, 4 November, Okovango.
Iris, bill and feet yellow.

17. *Otus capensis*, Smith.

Asio capensis, Sharpe, Birds S. Afr. p. 78.
Otus capensis, Boc. Orn. d'Ang. p. 61.

An adult female from Humpata, 30 October.
Iris brown, bill black. — Contents of stomach: Insects.

18. *Noctua capensis* (Smith).

Carine capensis, Sharpe, Birds S. Afr. p. 77.

Two males and a female, November and December, from the Umbella- and Kasinga River.
Iris, bill and feet yellow.

19. *Noctua perlata* (Vieill.).

Carine perlata, Sharpe, Birds S. Afr. p. 77.
Glaucidium perlatum, Boc. Orn. d'Ang. p. 60.

Male and female, the first from the Kakello River, 12 January, the latter from Otjipahé (Huilla), 14 March.
The male is but faintly, the female strongly spotted with white on the whole upper surface.
Iris, bill and toes yellow.

20. *Caprimulgus rufigena*, Smith.

Caprimulgus rufigena, Sharpe, Birds S. Afr. p. 85; — Boc. Orn. d'Ang. p. 154; — Gurney, Ibis 1877, p. 341; id. id. 1880, p. 259.

Eleven specimens, from Pompenini (1), Quipanhime (1), Otjipahé (2), River Husio (1), Kasinga River (6).

There is much difference in size and coloration amongst these specimens. The largest one, a female, has the wing 16,8 cM., the smallest 14,5 cM.

The difference in coloration is certainly due to age, as there are in the series specimens with the cross-bars on the primaries nearly fully developed, others wanting them at all, and between those there are different intermediate stages of development, represented by this series of specimens. Peculiarly enough there is no fully adult specimen,

with pure white tips to the two outermost pairs of tail-feathers amongst them, though all other stages are represented, from the full-sized but dirty white spots until down to the specimens where the white tips are entirely wanting. The white terminal patches seem to get developed, as well as the white cross-bars on the quills, by moulting and grow continually larger until they have reached their full size, but whenever such a feather gets lost, the new one has the white patch in its full extent, as clearly can be demonstrated in some of the specimens before me. The specimens in which the white cross-bar on the four first primaries is wanting, have the latter, with the exception of the terminal part, regularly barred with many rusty-red bands, especially the innermost, while on the third and second the rufous patches on the outer and inner web do not correspond with each other, and the first primary has only the inner web barred. The last cross-bars on the inner web of the three first primaries have very early the tendency of growing larger and continually increase in size, while the next ones become smaller and by and by disappear entirely, giving way for the dark ashy brown ground-color of the quills. The same tendency can be observed on the last spot of the outer web, which, though not as early and rapidly as that on the inner, grows larger until it is developed to a band which afterwards unites with that on the inner web to an oblique cross-bar. The patch across the inner web begins sometimes very early to become white in the centre, which grows continually until the whole spot is pure white. The corresponding spot on the outer web is much slower in changing into white, and the last remainders of the red color will disappear very late. There are, however, perhaps more than in any other species, individual exceptions from the rule. So I have before me, for instance, a specimen in which there is but a faint trace of a rufous spot on the outer web of the second primary — the first has no spot on the outer web — while that on the inner is fully developed and

pure white, and the third and fourth show fully developed cross-bars. Another has only the three first primaries barred with white, and still another (♀) has five quills — including the first — extremely broadly barred with rufous, so that I first held it for *C. fossii.*

21. *Caprimulgus fervidus*, Sharpe.

Caprimulgus fervidus, Sharpe, Birds S. Afr. p. 86.

An adult female (N° 288) from the Kasinga River, 30 March.

This fine species can easily be distinguished from *C. rufigena* by its somewhat larger size, the extremely broad golden brown collar round the neck, ditto lores, cheeks and chin. The latter, however, is nearly black in two other specimens we have in our collection. Moreover the narrow terminal part of the second, third and fourth quill is longer than in *rufigena*, and reaches up to about halfway on the white or rusty-red cross-bars, while in *rufigena* this narrow part does not reach as high as the latter. As to this character *C. fervidus* agrees with the much darker *C. pectoralis*, this latter, however, has the rusty collar not as broad and the terminal part of the two outermost pairs of tail-feathers white to a greater extent.

Iris dark brown, bill and feet horny.

22. *Caprimulgus fossii*, J. Verr. apud Hartl.

Caprimulgus Fossei, Boc. Orn. d'Ang. p. 152.

An adult male from Humpata (30 September), a second from Quipanhime (23 January) and a third from the Cunene River (10 September).

Iris brown, bill black, feet flesh-color. — Contents of stomach: Insects.

23. *Merops apiaster*, Linn.

An adult male, 12 February, Humpata.

24. *Merops superciliosus*, Linn.

Merops superciliosus, Sharpe, Birds S. Afr. p. 97; — Boc. Orn. d'Ang. p. 87.

An adult female, 4 January, Mossamedes.
Iris red, bill and feet black.

25. *Merops erythropterus*, Gm.

Merops pusillus, Sharpe, Birds S. Afr. p. 100.
Merops erythropterus, Boc. Orn. d'Ang. p. 92.

Three specimens from Humpata (February and July).

Though all three specimens have the blue superciliary streak fully developed and the black subterminal cross-bar on the tail very broad, I cannot adhere to the opinion that these characters are strong enough to allow a specific separation of this species on the reasons already mentioned (vide ante p. 211).

26. *Merops nubicoides*, Des Murs.

Merops nubicoides, Sharpe, Birds S. Afr. p. 99, pl. IV. f. 2.

Two adult males and a female, January, Kakelle River.
Iris dark brown, bill and feet black.

27. *Merops bullockoides*, Smith.

Merops Smithii, Schl. Mus. P.-B. Merops, p. 9.
Merops bullockoides, Sharpe, Birds S. Afr. p. 99, pl. IV. f. 1.

An adult male, 23 March, Otjipahé (Huilla).
Iris dark brown, bill and feet black.

28. *Merops hirundinaceus*, Vieill.

Dicrocercus hirundinaceus, Sharpe, Birds S. Afr. p. 101.
Merops hirundinaceus, Boc. Orn. d'Ang. p. 93.

Two immature females, 9 February, Kasinga River.
Iris red, bill and feet black.

29. *Coracias caudata*, Linn.

Coracias caudata, Sharpe, Birds S. Afr. p. 104; — Boc. Orn. d'Ang. p. 84.

Adult male and female, 12 February, Humpata.

Iris light brown, bill black, feet yellow. — Contents of stomach: Insects.

30. *Coracias spatulata*, Trimen.

Coracias spatulata, Boc. Orn. d'Ang. p. 536; — Sharpe, Birds S. Afr. p. 805.

Three specimens, February and March, in a forest near the Kasinga River.

Iris dark brown, bill black, feet yellow.

31. *Corythornis cyanostigma* (Rüpp.).

Corythornis cyanostigma, Sharpe, Birds S. Afr. p. 108; — Boc. Orn. d'Ang. p. 96.

Two specimens, Mossamedes and Humpata.

32. *Halcyon orientalis*, Peters.

Halcyon orientalis, Sharpe, Birds S. Afr. p. 116; — Boc. Orn. d'Ang. p. 538.

An adult female, 6 April, Muhino (Huilla).

Iris dark brown, bill red, black-tipped, feet red.

33. *Halcyon chelicutensis* (Stanley).

Halcyon chelicutensis, Sharpe, Birds S. Afr. p. 117; — Boc. Orn. d'Ang. p. 101.

Three females, two of which from the Kasinga River, 16 April, and one from the Umbella River, 10 December.

34. *Halcyon cyanoleuca* (Vieill.).

Halcyon cyanoleuca, Sharpe, Birds S. Afr. p. 120; — Boc. Orn. d'Ang. p. 100.

An adult male, 9 December, on the banks of the Kasinga River.

Iris brown, feet black.

35. *Tockus pallidirostris* (Finsch & Hartl.).

Tockus melanoleucus (part.), Sharpe, Birds S. Afr. p. 128.
Tockus pallidirostris, Boc. Orn. d'Ang. p. 117.

Two adult males and one female, 9, 16 and 18 February, Kasinga River.

Iris brown, bill entirely horny white, feet brown.

36. *Tockus erythrorhynchus* (Temm.).

Tockus erythrorhynchus, Sharpe, Birds S. Afr. p. 131; — Boc. Orn. d'Ang. p. 120.

An adult female, 24 January, Quipanhime.

Iris brown, bill red, feet bluish gray.

37. *Tockus nasutus* (Linn.).

Buceros nasutus et *poecilorhynchus*, Schl. Mus. P.-B. Buceros, p. 14.
Tockus nasutus, Sharpe, Birds S. Afr. pp. 133, 808; — Boc. Orn. d'Ang. p. 118.

An adult male with a strongly developed ridge on the upper mandible, 15 March, Otjipahé (Huilla); a nearly adult female, with the fore part of the bill red, 9 March, same locality, and a nearly adult male with the ridge less developed than in the adult male, 7 May, Kasinga River.

Iris brown, bill in male black with a white elongated triangular area at the base of the upper mandible, and several oblique narrow lines of the same color on the lower. The female has the forepart of the bill red, the white area extending over the whole basal half of the upper mandible, the basal half of the lower mandible like in the male; feet brown.

38. *Upupa africana*, Bechst.

Upupa africana, Sharpe, Birds S. Afr. p. 134; — Boc. Orn. d'Ang. p. 124.

An adult male, 14 February, Humpata.

Iris brown, bill and feet black. — Contents of stomach: Insects.

39. *Irrisor erythrorhynchus* (Lath.).

Irrisor erythrorhynchus, Sharpe, Birds S. Afr. p. 137; — Boc. Orn. d'Ang. p. 126.

Six specimens, viz. two adult males and two females from Muhino, collected in April, with entirely red bills; and male (14 Febr.) and female (18 March) in transitional stage, from the Kasinga River. In the latter male the parts which are beautifully metallic green in the adult bird, are blackish with a faint steelblue and purplish gloss, the throat is dull brown, the bill entirely black.

The immature female is in many points more advanced towards the adult stage. It has the bill almost entirely red and the metallic colors are fully assumed, but most of the quills and wing-coverts are dull brown, and the tail-feathers show the same color on the terminal part.

The bill in both females in considerably smaller than in the males.

Iris in all specimens dark brown, feet red.

40. *Irrisor cyanomelas* (Vieill.).

Rhinopomastes cyanomelas, Sharpe, Birds S. Afr. p. 138.
Irrisor cyanomelas, Boc. Orn. d'Ang. p. 127.

An adult male, 10 May, Kasinga River.

Iris dark brown, bill and feet, black.

41. *Corythaix livingstonii* (G. R. Gray).

Corythaix livingstonii, Sharpe, Birds S. Afr. p. 143; — Boc. Orn. d'Ang. p. 132.

An adult female, 1 April, Muhino (Huilla).

Iris light brown, bill blood-red, above and behind the eye orange-red, feet black.

42. *Schizorhis concolor* (Smith).

Schizorhis concolor, Sharpe, Birds S. Afr. pp. 144, 809; — Boc. Orn. d'Ang. p. 134.

An adult male, 23 June, Humpata, and adult male and female, 4 and 7 May, Kasinga River.

43. *Cuculus gularis*, Steph.

Cuculus gularis, Sharpe, Birds S. Afr. pp. 148, 809; — Boc. Orn. d'Ang. p. 139.

An adult female, 7 March, Otjipahé (Huilla).
Iris brown, bill black, yellow at the base, feet yellow.

44. *Coccystes glandarius* (Linn.).

Coccystes glandarius, Sharpe, Birds S. Afr. p. 157; — Boc. Orn. d'Ang. p. 145.

Adult male, 5 December, Umbella River.
Iris brown, bill horny brown, feet gray.

45. *Coccystes cafer* (Licht.).

Coccystes cafer, Sharpe, Birds S. Afr. p. 158.
Coccystes afer, Boc. Orn. d'Ang. p. 542.

Two adult males, 14 March, Otjipahé (Huilla) and 28 December, Umbella River.
Iris dark brown, bill black, feet bluish gray.

46. *Coccystes jacobinus* (Bodd.).

Coccystes jacobinus, Sharpe, Birds S. Afr. p. 158; — Boc. Orn. d'Ang. p. 146.

An adult male, 13 February, Humpata.

47. *Centropus nigrorufus* (Cuv.).

Centropus nigrorufus, Sharpe, Birds S. Afr. p. 165; — Boc. Orn. d'Ang. p. 543.

An adult female, 30 March, Kasinga River.
No cross-bars on any part of the plumage.
Iris dark brown, bill and feet black.

48. *Indicator sparrmannii* (Steph.).

Indicator sparrmannii, Sharpe, Birds S. Afr. p. 166; — Boc. Orn. d'Ang. p. 135.

An adult female, 6 September, Cunene River.

49. *Indicator major*, Steph.

Indicator major, Sharpe, Birds S. Afr. p. 168; — Boc. Orn. d'Ang. p. 136.

An adult male, 7 January, Kakelle River.
Iris dark brown, bill black, feet horn-color.

50. *Indicator minor*, Steph.

Indicator minor, Sharpe, Birds S. Afr. p. 169; — Boc. Orn. d'Ang. p. 137.

An adult male, 14 April, Muhino (Huilla).
Iris brown, bill black, feet olive.

51. *Pogonorhynchus torquatus* (Dumont).

Pogonorhynchus torquatus, Sharpe, Birds S. Afr. p. 172; — Boc. Orn. d'Ang. p. 106.

Three specimens: adult ♂ and ♀, 7 October, Humpata, and an adult female, 2 April, Muhino (Huilla).
Iris red, bill and feet black.

52. *Megalaema chrysocoma* (Temm.).

Barbatula chrysocoma, Boc. Orn. d'Ang. p. 109.

An adult male, 14 April, Muhino (Huilla), and an adult female, 30 January, Quipanhime.
Iris yellow, bill and feet black.

53. *Trachyphonus cafer* (Vieill.).

Trachyphonus cafer, Sharpe, Birds S. Afr. p. 178; — Boc. Orn. d'Ang. p. 109.

Fife specimens, four of which from the Kasinga River and one (♂) from Okovango.

The specimens were collected in November, March and April. Two of them, one collected in November the other in April, are in a transitional stage of plumage, the dark parts being brown instead of black.

Iris reddish brown, bill horny yellow, feet black.

54. *Campothera bennettii* (Smith).

Campethera bennetti, Sharpe, Birds S. Afr. p. 181; — Boc. Orn. d'Ang. p. 80 (part.).

Adult male, 9 August, Calculavar, and adult female, 11 March, Kasinga River.

Iris red, bill grayish black, feet olive-green.

Another specimen, collected 12 January on the Kakelle River, and (perhaps wrongly) labelled as a female, differs from the adult male in having the malar stripe black instead of red, the black feathers are however interspersed with some red ones, and the same is the case with the anterior half of the crown, which is also black, with faint whitish tips (no spots at all) to the feathers of the front. There is no brown stripe along the sides of the head; chin and throat are whitish, with a fulvous or rather vinaceous tinge, which covers the whole under surface and is very plainly represented on the centre of abdomen and on the under tail-coverts. The rump is barred like in above mentioned species. The size, however, is slightly smaller, the wing measuring 12 cM. instead of 12,5.

Iris red, bill blackish olive, feet olive-green.

55. *Campothera smithii* (Malh.).

Campethera smithii, Sharpe, Birds S. Afr. p. 184.
Campethera Brucei, Boc. Orn. d'Ang. p. 79.

Adult male and female, 2 April, Muhino.

Iris red, bill black, feet olive-green.

56. *Mesopicus namaquus* (Licht.).

Mesopicus namaquus, Sharpe, Birds S. Afr. p. 188.
Dendrobates namaquus, Boc. Orn. d'Ang. p. 75.

An adult female, 29 January, Quipanhime.
Iris red, bill and feet black.

57. *Dendropicus cardinalis* (Gm.).

Dendropicus cardinalis, Sharpe, Birds S. Afr. p. 290.
Dendrobates cardinalis, Boc. Orn. d'Ang. p. 76.

An adult male and two females, Cunene, Muhino (Huilla) and Kasinga River.
Iris red, bill grayish, feet olive.

58. *Psittacus meyeri* (Rüpp.).

Psittacus meyeri, Sharpe, Birds S. Afr. p. 195.
Pionias meyeri, Boc. Orn. d'Ang. p. 68.

Three males and one female, Quipanhime and Kasinga River.
Iris brown, bill and feet black.

59. *Turdus litsitsirupa*, Smith.

Conf. Seebohm, Cat. Birds Br. Mus. V. p. 182 (1881).

Four male specimens, collected 9 January on the Kakelle River. Three of the specimens are strongly, the fourth but faintly washed on front, fore-part of the crown, the sides of chin, abdomen, under tail-coverts and especially the tibiae with rich salmon-red, of which in two specimens a slight hue is spread over the whole lower surface. This peculiar salmon tinge may not be identified with the vinaceous buff of the lower surface of the north eastern species *T. simensis*, but rather compared with that of our Merganser, and finding no trace of it in our Museum specimens I suppose that it disappears under the influence of light.
Iris brown, bill brown, the lower mandible yellowish with the tip brown, feet horny yellow.
The nearly allied north eastern form, *T. simensis* Rüpp., as von Heuglin already observed, is easily distinguished by the much smaller and more circular dark spots on the sides of the abdomen, while these spots are larger and more

pyriform on the corresponding parts in *litsitsirupa*. I find that this character holds still better than the buff tinge on the lower surface, which is almost wanting in one of our Abyssinian specimens. A true specimen of *T. simensis* in our collection, very strongly tinged with buff underneath, and having belonged to the former Cabinet of Temminck, is said to come from Caffraria.

60. *Cossypha subrufescens*, Bocage.

Cossypha heuglini, Sharpe, Birds S. Afr. pp. 227, 817; — Boc. Orn. d'Ang. p. 258.

Cossypha subrufescens, Boc. Orn. d'Ang. p. 552; — Sharpe Cat. Birds Br. Mus. VII, p. 41; id., Birds S. Afr. p. 817.

Two adult males, 1 April, Muhino, and 3 Sept., Otjipahé.
Iris dark brown, bill black, feet sooty brown.

61. *Thamnolaea arnotti*, Tristram.

Saxicola arnotti, Sharpe, Birds S. Afr. p. 245; — Boc. Orn. d'Ang. p. 269.

An adult male, 5 December, Umbella River.
Iris brown, bill and feet black.

62. *Saxicola leucomelaena*, Burch.

Saxicola leucomelaena, Sharpe, Birds S. Afr. p. 247; — Boc. Orn. d'Ang. p. 271.

Immature male and female, 5 January, Mossamedes.
Iris brown, bill and feet black. — Contents of stomach: Seeds.

63. *Pratincola torquata* (Linn.).

Pratincola torquata, Sharpe, Birds S. Afr. p. 250; — Boc. Orn. d'Ang. p. 274.

Three adult males and one female, September and October, Humpata.
Iris dark brown, bill and feet black.

64. *Pycnonotus layardi*, Gurney.

Pycnonotus tricolor, Sharpe, Birds S. Afr. p. 208.
Pycnonotus nigricans, Boc. Orn. d'Ang. p. 242.
Pycnonotus layardi, Sharpe, Cat. Birds Br. Mus. VI, p. 132.

An adult female, 14 April, Muhino (Huilla).

Iris dark brown, bill and feet black, wattle round the eye in skin black.

65. *Pycnonotus nigricans* (Vieill.).

Pycnonotus capensis (part.), Sharpe, Birds S. Afr. p. 207.
Pycnonotus nigricans, Boc. Orn. d'Ang. p. 242; — Sharpe, Cat. Birds Br. Mus. VI, p. 134.

One specimen (♀), 24 December, Mossamedes.

Iris red, eyelids in fresh birds orange, bill and feet black.

66. *Chlorocichla occidentalis*, Sharpe.

Criniger flaviventris, Boc. Orn. d'Ang. p. 245.
Chlorocichla occidentalis, Sharpe, Cat. Birds Br. Mus. VI, p. 113, pl. 8; id., Birds S. Afr. p. 814.

An adult specimen, sex not mentioned, 8 April, Muhino (Huilla).

Iris dark brown, bill and feet bluish gray.

67. *Prinia flavicans* (Bonnat. et Vieill.).

Drymoeca flavicans, Sharpe, Birds S. Afr. p. 254, pl. 8.

A probably adult male, 8 February, Humpata.

Whole upper surface uniform earthy gray; sides of face and throat whitish; a narrow stripe through the eye, beginning at the base of the bill, pale rusty brown; a distinct dark pectoral band; breast and abdomen yellowish; tail-feathers broadly tipped with whitish, with a dark subterminal spot.

Iris dark brown, bill black, feet yellowish brown.

68. *Crateropus jardinei*, Smith.

Crateropus jardinei, Sharpe, Birds S. Afr. p. 212; — Boc. Orn. d'Ang. p. 250.

An adult female, 13 March, Otjipahé (Huilla).

Iris orange, bill black, feet gray.

69. *Crateropus hartlaubi*, Bocage.

Crateropus hartlaubi, Sharpe, Birds S. Afr. p. 214; — Boc. Orn. d'Ang. p. 252; pl. 1, f. 1.

Adult male and female, April, Muhino, and adult male, 29 June, Humpata.

Iris red, bill black, feet brown.

70. *Neocichla Kelleni*, n. sp.

(Pl. 9, fig. 1).

A male specimen with unworn plumage, collected 8 December, in a forest near the Umbella River.

This species is a yellow-billed *Neocichla*, closely allied to *N. gutturalis*, but with some resemblance in plumage to *Crateropus hartlaubi*.

Front and crown blackish with a narrow terminal edge of white to each feather, giving the crown a somewhat scaly appearance. The feathers of the whole neck, cheeks, chin and throat are silvery gray, each with a dark central spot. A narrow moustachial streak at the base of the lower mandible and lores black. The hind neck, axillaries, mantle and back are dark brown, each feather broadly edged all around with pale fulvous, the rump and upper tail-coverts pale fulvous with somewhat darker centres. The two median tail-feathers are dark olive-brown, the other black with a tinge of the same brown near the tip, and all are broadly tipped with dirty white. The wings are exactly like in *N. gutturalis*, the first primary very short and narrow, the second nearly as long as the third and fourth, which are the longest, third till seventh primary emarginate on the outer edge of the terminal part, the last one

very faintly so, the outer web of the primaries from off the base to the narrowed terminal part of the quills velvety black, the latter as well as the whole inner web dark earthy brown, the innermost primaries edged with white near the base. Basal half of secondaries pure white, continued down the outer edge of the whole feather and forming together a broad longitudinal white bar and a large space of white on the inner surface of the wing. The inner secondaries dark brown, with a broad fulvous edging round the whole feather. Primary-coverts pure black, glossed with steel-blue on the outer web. Wing-coverts dark brown and narrowly tipped with white, the outer ones also edged with steel-blue. Under wing-coverts and axillaries lively fulvous, edge of wing whitish. Entire chest and breast, flanks, thighs, sides of abdomen and under tail-coverts of the same color as the under wing-coverts; the feathers on chest, breast and flanks with a large pyriform blackish central spot and with isabel edgings, centre of abdomen white.

Iris gray, bill entirely yellow, feet brown.

Total length 210 mM., culmen 21, wing 112, tail 86, tarsus 30. — The bill is laterally compressed, much more so than in *N. gutturalis*.

71. *Neocichla gutturalis* (Boc.).

Neocichla gutturalis, Sharpe, Birds S. Afr. p. 215; — Boc. Orn. d'Ang. p. 253; pl. 1, f. 2.

Adult female, 27 February, Kasinga River.
Iris yellow, bill black, feet brown.

72. *Cinnyris gutturalis* (Linn.).

Cinnyris gutturalis, Sharpe, Birds S. Afr. p. 311; — Boc. Orn. d'Ang. p. 164.

Three adult males, in brushwood about Humpata.
Iris brown, bill and feet black.

73. *Cinnyris amethystinus* (Shaw).

Cinnyris amethystinus, Sharpe, Birds S. Afr. p. 315; — Boc. Orn. d'Ang. p. 163.

An adult male, 10 January, Kakelle River.
Iris brown, bill and feet black.

74. *Cinnyris chalceus* (Hartl.).

Nectarinia chalcea, Boc. Orn. d'Ang. p. 174.

An adult male, 11 February, Humpata.
Notwithstanding Mr. Gadow's assertion, that the type of this species shows not the least difference from that of the nearly allied *C. cupreus*, I consider this species to be sufficiently distinct by the golden green upper surface of the head, without any tinge of purplish red.
Iris dark brown, bill and feet black.

75. *Cinnyris bifasciatus* (Shaw).

Nectarinia bifasciata, Boc. Orn. d'Ang. p. 168.

An adult male, 24 December, Mossamedes.
Iris dark brown, bill and feet black.

76. *Cinnyris oustaleti* (Boc.).

Nectarinia Oustaleti, Boc. Orn. d'Ang. p. 545.

A nearly adult male, 18 July, Humpata.
Iris dark brown, bill and feet black.

77. *Parus niger*, Vieill.

Parus niger, Sharpe, Birds S. Afr. p. 331; — Boc. Orn. d'Ang. p. 285.

An adult and an immature male, obtained in March on the Kasinga River. — The immature male is somewhat duller in color than the adult.
Iris in both dark brown, bill and feet black.

78. *Salpornis salvadorii* (Boc.).

Hylypsornis salvadori, Boc. Orn. d'Ang. p. 289, pl. 10, f. 2.
Salpornis salvadorii, Sharpe, Birds S. Afr. p. 835.

An adult female, Kasinga River.

Iris dark brown, bill horny brown, lower mandible paler towards the base, feet brown.

79. *Batis pririt* (Vieill.).

Batis (Pachyprora) pririt, Sharpe, Birds S. Afr. p. 138; — Boc. Orn. d'Ang. p. 199.

Two adult males; 2 January, Kakelle River, and 7 April, Muhino.

Iris dark brown, bill and feet black.

80. *Laniotur dus torquatus*, Waterhouse.

Lanioturdus torquatus, Sharpe, Birds S. Afr. p. 351; — Boc. Orn. d'Ang. p. 197.

An adult male, 24 September, Humpata.

Iris yellow, bill and feet black.

81. *Terpsiphone cristata* (Linn.).

Terpsiphone cristata, Sharpe, Birds S. Afr. p. 352; — Boc. Orn. d'Ang. p. 191.

A male with fully developed long tail-feathers, but the head still bluish gray, 12 December, Kasinga River, and an adult female, same date and locality.

82. *Hirundo puella*, Temm.

Hirundo puella, Boc. Orn. d'Ang. p. 184; — Sharpe, Birds S. Afr. p. 373.

Two adult females, 13 February, Humpata.

Iris brown, bill and feet black.

83. *Lanius minor*, Gm.

Lanius minor, Boc. Orn. d'Ang. p. 214; — Sharpe, Birds S. Afr. p. 374.

Two adult males, Kasinga- and Okovango River.
Iris dark brown, bill and feet black.

84. *Lanius collaris*, Linn.

Lanius collaris, Sharpe, Birds S. Afr. p. 374.
Fiscus collaris, Boc. Orn. d'Ang. p. 215.

A female in transitional stage, 13 March, Otjipahé (Huilla), and two young males, 29 March, Kasinga River.
Iris brown, bill black, more flesh-colored in the young, feet gray.

85. *Lanius collurio*, Linn.

Enneoctonus collurio, Sharpe, Birds S. Afr. p. 378; — Boc. Orn. d'Ang. p. 213.

An adult male, 3 March, Kasinga River.
Iris dark brown, bill horn-color, feet black.

86. *Urolestes melanoleucus* (Jard. & Selby).

Urolestes melanoleucus, Sharpe, Birds S. Afr. p. 380; — Boc. Orn. d'Ang. p. 219.

Two adult males; 14 January, Kakelle River, and 24 January, Quipanhime.
Iris dark brown, bill and feet black.

87. *Laniarius sulphureipectus* (Less.).

Laniarius sulphureipectus, Sharpe, Birds S. Afr. p. 384.
Chlorophoneus sulphureipectus, Boc. Orn. d'Ang. p. 234.

An adult female, 24 March, Otjipahé (Huilla).
Iris dark brown, bill black, feet pale bluish gray.

88. *Laniarius bakbakiri* (Levaill.).

Laniarius gutturalis, Sharpe, Birds S. Afr. p. 385.
Chlorophoneus bacbakiri, Boc. Orn. d'Ang. p. 232.

An adult male, 22 December, Mossamedes.
Iris brown, bill black, feet bluish gray.

89. *Laniarius poliocephalus* (Licht.).

Laniarius poliocephalus, Sharpe, Birds S. Afr. p. 387.
Meristes olivaceus, Boc. Orn. d'Ang. p. 235.

An adult female, 13 April, Muhino (Huilla).
Iris red, bill black, feet pale bluish gray.

90. *Laniarius atrococcineus* (Burch.).

Laniarius atrococcineus, Sharpe, Birds S. Afr. p. 389; — Boc. Orn. d'Ang. p. 226.

Two adult females; 16 March, Otjipahé, 8 August, Calculavar.

Iris dark brown (in one specimen gray!), bill and feet black.

91. *Dryoscopus guttatus*, Hartl.

Dryoscopus guttatus, Sharpe, Birds S. Afr. p. 391.
Dryoscopus neglectus, Boc. Orn. d'Ang. p. 230.

Two adult males, collected in February and May, on the Kasinga River.

Both specimens have the whole lower surface pure white and no white tips to the tail-feathers. In the latter specimen the white longitudinal band on the wing is formed by only two white-edged secondaries, while in the first there is a third secondary, though only on the basal half, edged with white.

Iris dark brown, bill and feet black.

92. *Dryoscopus cubla* (Levaill.).

Laniarius cubla, Sharpe, Birds S. Afr. p. 392.
Dryoscopus cubla, Boc. Orn. d'Ang. p. 227.

Six specimens, adult and young males and females, collected from December to May, on the Kasinga- and Umbella Rivers, and at Otjipahé near Huilla. A young male, collected in February, has the general color on the upper surface brown, a superciliary band from front to above the eye white, varied with blackish, a loral patch brown, the feathers of the crown largely tipped with white, hind

neck and down the centre of the mantle very much varied with white, scapularies and lesser wing-coverts more uniform brown; fluffy feathers on lower back and rump ashy gray, with very large white subterminal spots and dark brown tips, upper tail-coverts black, quills (especially the secondaries) edged and tipped with white or pale fulvous; greater and second series of wing-coverts and primary-coverts very broadly edged and tipped with pale fulvous and white, lower surface of the wing uniform pale fulvous; tail black, each feather, except the central ones, with the outer web and tip white, the dark parts barred across with pale brown. Entire under surface of body white, with faint blackish longitudinal striolations, especially on chest and sides of breast. The young female, which was collected in May, has the lower surface much more mottled with black; the superciliary streak is pure white, the tips to the feathers on the crown are almost entirely gone and the white edgings to the tail-feathers are much reduced, leaving only the outer web of the outermost pair pure white. The pale brown bars across the tail-feathers have also disappeared. There is no transitional stage between these two and the adult.

Iris in adult and young dark brown, in one of the first, however, it is said by the collector to be orange, in another blood-red; bill black, feet bluish gray.

93. *Telephonus senegalus* (Linn).

Laniarius senegalus, Sharpe, Birds S. Afr. p. 394.
Telephonus erythropterus, Boc. Orn. d'Ang. p. 223.

An adult female, 23 March, Kasinga River.
Iris brown, bill black, feet bluish gray.

94. *Graucalus pectoralis*, Jard. & Selby.

Graucalus pectoralis, Sharpe, Birds S. Afr. p. 843.
Ceblepyris pectoralis, Boc. Orn. d'Ang. p. 205.

Two, probably immature, though full-grown males, are totally resembling the adult female of this species in plu-

mage; one of them has arrow-shaped or rather cordiform dark spots near the tips of some of the under tail-coverts, the other some few faint spots of the same shape on the breast.

Iris dark brown, bill and feet black.

Both specimens are collected on the Kasinga River, 22 February and 3 March.

95. *Eurocephalus anguitimens*, Smith.

Eurocephalus anguitimens, Sharpe, Birds S. Afr. p. 400; — Boc. Orn. d'Ang. p. 218.

Two adult males and one female, both the first collected in March, the latter in May, on the Kasinga River.

Iris dark brown, bill and feet black.

96. *Bradyornis oatesii*, Sharpe.

Bradyornis oatesii, Sharpe, in Oates' Matabela Land, App. p. 314, pl. B; — id., Birds S. Afr. p. 402.

An adult male, 31 March, Muhino, and another specimen, sex not mentioned, 11 March, Kasinga River.

Iris dark brown, bill and feet black.

97. *Prionops talacoma*, Smith.

Prionops talacoma, Sharpe, Birds S. Afr. p. 406; — Boc. Orn. d'Ang. p. 221.

Two adult males and a young female, differing from the adult by having the crown earthy brown, the glossy greenish feathers on the back intermixed with some brown ones, and the feathers on the chin scarcely tipped with gray. All three specimens were obtained in the vicinity of Huilla, in the month of August.

98. *Sigmodus retzii* (Wahlb.).

Sigmodus retzii, Sharpe, Birds S. Afr. p. 407.
Prionops Retzii, Boc. Orn. d'Ang. p. 222.

Three adult, one of which a female, and a young fe-

male, from the Kasinga- and Kakelle River. — The young male, which is all over ashy brown, the white vent and under tail-coverts excepted, was killed 11 March.

Iris in adult and young yellow, bill red with yellowish hook, in the young more brownish, feet pale red.

99. *Dicrurus assimilis* (Bechst.).

Buchanga assimilis, Sharpe, Birds S. Afr. p. 408.
Dicrurus divaricatus, Boc. Orn. d'Ang. p. 211.

An adult male, 25 January, Quipanhime.

Iris red, bill and feet black.

100. *Oriolus notatus*, Peters.

Oriolus notatus, Sharpe, Birds S. Afr. p. 412; — Boc. Orn. d'Ang. p. 236.

Adult male, December, Umbella River, and nearly adult female, January, Quipanhime.

Iris red, bill in male cherry-red, in female black, feet in both bluish gray.

101. *Oriolus larvatus*, Licht.

Oriolus larvatus, Sharpe, Birds S. Afr. p. 413; — Boc. Orn. d'Ang. p. 238.

Adult male, 10 March, Otjipahé, and immature male, 14 January, Kakelle River. This latter is similar to the adult, but has the feathers on chin, throat and chest broadly edged with greenish yellow in stead of pure black, and also, though in a lesser degree, the front and crown. The feathers on scapularies and mantle show very narrow dark shaft-streaks, and the greater and median series of wing-coverts are broadly edged with sulphur-yellow.

Adult male: iris red, bill cherry-red, feet bluish gray; young: iris brown, bill black, feet bluish gray.

102. *Corvus scapulatus*, Daud.

Corvus scapulatus, Sharpe, Birds S. Afr. p. 416; — Boc. Orn. d'Ang. p. 300.

Adult female, 26 September, Humpata.
Iris dark brown, bill and feet black.

103. *Dilophus carunculatus* (Gm.).

Dilophus carunculatus, Sharpe, Birds S. Afr. p. 421; — Boc. Orn. d'Ang. p. 302.

Immature male with only the malar streak naked, 7 November, Okovango.
Iris brown, bill horn-colour, feet black.

104. *Lamprocolius sycobius* (Licht.).

Lamprocolius sycobius, Sharpe, Birds S. Afr. p. 426; — Boc. Orn. d'Ang. p. 308.

Adult male, 29 June, and adult female, 13 February, both from Humpata. The female is considerably smaller than the male.
Iris pale orange, bill and feet black.

105. *Plocepasser mahali*, Smith.

Plocepasser mahali, Sharpe, Birds S. Afr. p. 447; — Boc. Orn. d'Ang. p. 318.

An adult male, 14 December, Kasinga River.
Iris brown, bill and feet reddish horn-colour.

106. *Plocepasser rufoscapulatus*, n. sp.

(Pl. 9, fig. 2).

Crown and sides of head and occiput grayish buff, front black, and also a double, broad band, running from the front along the crown and uniting on the occiput, leaving the centre and sides of the crown grayish buff. Lores of the latter color, each feather tipped with black; a broad, ill-defined black streak running from the lores along the lower margin of the eye and above the ear-coverts to the sides of the neck. Moustachial streak, cheeks and ear-coverts somewhat paler than the gray parts of the crown and separated from chin and throat by a nar-

row but distinct black line, beginning at the inner angle of the lower mandible in front of the chin and running to the sides of the fore-neck. Mantle, scapulars and lesser wing-coverts rufous, each feather broadly edged and tipped with chestnut, lower back, rump and upper tail-coverts sandy buff, tail entirely sandy brown, showing slight undulations under certain lights. Quills dark grayish brown, the primaries narrowly edged with dirty white, the secondaries and tertiaries broadly margined on the outer web with isabel, inclining to fulvous; greater and second series margined and very broadly tipped with white, especially the second series, forming a narrow and a broad oblique white bar across the wing. Under wing-coverts silvery gray, somewhat tinged with fawn-color, the feathers along the edge of the wing streaked with dark brown. Chin silvery white, throat and chest gray, streaked with fulvous, and with some faint blackish centres to the feathers; breast, abdomen, thighs, flanks and under tail-coverts ashy gray, somewhat paler on the centre of breast and abdomen.

Iris dark brown, bill pale horn-color, feet and claws yellowish horn-color. Total length 150 mM., wing 95, tail 68, tarsus 20, culmen 18.

This species differs from the black-crowned congeners especially by the pale streak in the centre of the crown, by the red mantle and by the rump and upper tail-coverts being gray instead of white.

An adult male, 27 February, on the banks of the Kasinga River.

107. *Vidua paradisea* (Linn.).

Vidua verreauxii, Sharpe, Birds S. Afr. p. 452.
Vidua paradisea, Boc. Orn. d'Ang. p. 346; — Shelley, Ibis 1886, p. 342.

Two males with the hind neck paler than the western form, but darker than *V. verreauxii*. — Collected 3 and 4 April, Kasinga River.

Iris dark brown, bill and feet black.

108. *Coliopasser progne* (Bodd.).

Chera progne, Sharpe, Birds S. Afr. p. 458; — Boc. Orn. d'Ang. p. 347.

An adult male, 8 October, Humpata.
Iris brown, bill and feet black.

109. *Pyromelana oryx* (Linn.).

Pyromelana oryx, Sharpe, Birds S. Afr. p. 462.
Euplectes oryx, Boc. Orn. d'Ang. p. 335.

Four adult males in breeding plumage, one from Mossamedes (December) and three from Humpata (February).
Iris dark brown, bill black, feet flesh-color.

110. *Estrelda astrild* (Linn.).

Estrelda astrild, Sharpe, Birds S. Afr. p. 470; — Boc. Orn. d'Ang. p. 358.

An adult female, 24 December, Mossamedes.

111. *Passer arcuatus* (Gm.).

Passer arcuatus, Sharpe, Birds S. Afr. p. 478; — Boc. Orn. d'Ang. p. 363.

Adult male and female, 29 December, Mossamedes.

112. *Serinus sulphuratus* (Linn.).

Crithagra sulphurata, Sharpe, Birds S. Afr. p. 486.

Two adult females, 12 and 15 February, Humpata.
Iris dark brown, bill and feet horn-color.

113. *Mirafra africana*, Smith.

Mirafra africana, Sharpe, Birds S. Afr. p. 519; — Boc. Orn. d'Ang. p. 374.

An adult male, 6 April, Muhino (Huilla).
Iris dark brown, bill and feet flesh-color.

114. *Tephrocorys cinerea* (Gm.).

Tephrocorys cinerea, Sharpe, Birds S. Afr. p. 511.
Calandritis cinerea, Boc. Orn. d'Ang. p. 373.

An adult female, 7 October, Humpata.
Iris pale brown, bill and feet horn-color.

115. *Anthus bocagii*, Nicholson.

Anthus pallescens, Boc. Orn. d'Ang. p. 294, pl. 8, fig. 2; — Sharpe, Birds S. Afr. p. 536.

An adult specimen in much worn plumage, 22 December, Mossamedes.
Iris brown, upper mandible brown, lower pale horny, feet flesh-color.

116. *Treron calva*, Temm.

Treron calva, Sharpe, Birds S. Afr. p. 557; — Boc. Orn. d'Ang. p. 378.

An adult male, 11 February, Kasinga River, and another, 12 July, Humpata. In both specimens the bare space on the base of the bill proceeds far up to the forehead. One of them has the tail-feathers entirely gray, while in the other they are edged with greenish yellow on the terminal half of the outer webs.
Iris bluish gray, ring round the eye red, bill bluish, basal part red, feet wax-yellow.

117. *Columba phaeonota*, Gray.

Columba phaeonota, Sharpe, Birds S. Afr. p. 559.
Columba guineensis, Boc. Orn. d'Ang. p. 381 (*conf.* Shelley, on the Columbidae of the Ethiopian Region, Ibis 1883, p. 279).

An immature male with many feathers on the crown broadly tipped with rusty brown, killed 4 January, Mossamedes.
Iris yellow, bare space round the eye red, bill black, feet red.

118. *Stictoenas arquatrix* (Temm.).

Columba arquatrix, Boc. Orn. d'Ang. p. 382.
Palumbus arquatrix, Sharpe, Birds S. Afr. p. 561.

An adult female, 23 October, Humpata.
Iris gray, bare space round the eye, bill and feet lemon-yellow.

119. *Turtur capicola* (Sundev.).

Turtur damarensis, Boc. Orn. d'Ang. p. 385; — Sharpe, Birds S. Afr. p. 567.

An adult male, 9 February, Humpata.
Iris dark brown, bill black, feet red.

120. *Turtur senegalensis* (Linn.).

Turtur senegalensis, Boc. Orn. d'Ang. p. 388; — Sharpe, Birds S. Afr. p. 568.

An adult male, 4 January, Mossamedes.
Iris brown, round the eye coral-red, bill black, feet red.

121. *Chalcopelia afra* (Linn.).

Chalcopelia afra, Boc. Orn. d'Ang. p. 389; — Sharpe, Birds S. Afr. p. 570.

An adult female, 4 January, Mossamedes.
Iris brown, bill black, feet red.

122. *Oena capensis* (Linn.).

Oena capensis, Boc. Orn. d'Ang. p. 392; — Sharpe, Birds S. Afr. p. 572.

An adult female, 4 January, Mossamedes.
Iris brown, bill black, feet red.

123. *Francolinus subtorquatus*, Smith.

Francolinus subtorquatus, Sharpe, Birds S. Afr. p. 600.

An adult male, 30 June, Humpata.
Iris dark brown, bill gray, flesh-color at the base, feet yellow.

124. *Otis ruficrista*, Smith.

Otis ruficrista, Sharpe, Birds S. Afr. p. 639.

An adult male, 11 January, Pompenini.

Iris pale yellow, bill and feet grayish green.

125. *Oedicnemus capensis*, Licht.

Oedicnemus capensis, Sharpe, Birds S. Afr. p. 645; — Boc. Orn. d'Ang. p. 424.

Adult male and female, 6 November, Humpata.

Iris brown, bill greenish yellow, tip black, feet yellow, tarsi anteriorly green.

126. *Cursorius senegalensis*, Licht.

Cursorius senegalensis, Sharpe, Birds S. Afr. p. 654; — Boc. Orn. d'Ang. p. 419.

An adult male, 24 April, Kasinga River.

Iris brown, bill dark horn-gray, base of lower mandible yellow, feet white.

127. *Aegialitis tricollaris* (Vieill.).

Aegialitis tricollaris, Sharpe, Birds S. Afr. p. 664; — Boc. Orn. d'Ang. p. 433.

An adult male, 25 March, Otjipahé (Huilla).

128. *Lobivanellus senegalus* (Linn.).

Lobivanellus senegalus, Sharpe, Birds S. Afr. p. 666.
Lobivanellus lateralis, Boc. Orn. d'Ang. p. 428.

Nearly adult male, 12 February, Humpata, nearly adult female, the frontal patch intermixed with black feathers, and abdomen, thighs and under tail-coverts isabelline, 27 June, Humpata, and a fully adult male, 2 September, Otjipungo.

Iris in the two first specimens pale yellow, in the adult male brown, bill black, yellow at the base, wattles on

the upper parts orange, on the lower parts paler yellow, feet yellow. — Contents of stomach: Beetles.

129. *Actitis hypoleucos* (Linn.).

Tringoides hypoleucos, Sharpe, Birds S. Afr. p. 686.
Actitis hypoleucos, Boc. Orn. d'Ang. p. 468.

Adult male, 24 December, Mossamedes.

130. *Totanus glareola*, Linn.

Totanus glareola, Sharpe, Birds S. Afr. p. 690; — Boc. Orn. d'Ang. p. 467.

Adult female, 23 December, Umbella River.

131. *Scopus umbretta*, Gm.

Scopus umbretta, Sharpe, Birds S. Afr. p. 725; — Boc. Orn. d'Ang. p. 457.

Adult female, 26 October, Humpata, on the border of a swamp.
Iris dark brown, bill and feet black.

132. *Ciconia abdimii*, Licht.

Ciconia abdimii, Sharpe, Birds S. Afr. p. 730; — Boc. Orn. d'Ang. p. 451.

Adult female, 2 March, Kasinga River.
Iris brown, bill and feet red.

A. J. J. Wendel ad nat. del. et lith. P.W.M. Trap impr.

1. Neocichla kelleni *Büttikofer.*
2. Plocepasser rufoscapulatus *Büttikofer.*